

1

SYSTEMS AND METHODS FOR CONTROLLING PLAYBACK AND OTHER FEATURES OF A WIRELESS HEADPHONE

FIELD OF THE DISCLOSURE

The present disclosure is related to consumer goods and, more particularly, to methods, systems, products, features, services, and other elements directed to media playback or some aspect thereof.

BACKGROUND

Options for accessing and listening to digital audio in an out-loud setting were limited until in 2002, when SONOS, Inc. began development of a new type of playback system. Sonos then filed one of its first patent applications in 2003, entitled "Method for Synchronizing Audio Playback between Multiple Networked Devices," and began offering its first media playback systems for sale in 2005. The Sonos Wireless Home Sound System enables people to experience music from many sources via one or more networked playback devices. Through a software control application installed on a controller (e.g., smartphone, tablet, computer, voice input device), one can play what she wants in any room having a networked playback device. Media content (e.g., songs, podcasts, video sound) can be streamed to playback devices such that each room with a playback device can play back corresponding different media content. In addition, rooms can be grouped together for synchronous playback of the same media content, and/or the same media content can be heard in all rooms synchronously.

SUMMARY OF THE INVENTION

Systems and methods for controlling playback and other features of a wireless headphone are disclosed.

BRIEF DESCRIPTION OF THE DRAWINGS

Features, aspects, and advantages of the presently disclosed technology may be better understood with regard to the following description, appended claims, and accompanying drawings, as listed below. A person skilled in the relevant art will understand that the features shown in the drawings are for purposes of illustrations, and variations, including different and/or additional features and arrangements thereof, are possible.

FIG. 1A is a partial cutaway view of an environment having a media playback system configured in accordance with aspects of the disclosed technology.

FIG. 1B is a schematic diagram of the media playback system of FIG. 1A and one or more networks.

FIG. 1C is a block diagram of a playback device in accordance with certain embodiments of the invention.

FIG. 1D is a block diagram of a playback device in accordance with certain embodiments of the invention.

FIG. 1E is a block diagram of a network microphone device in accordance with certain embodiments of the invention.

FIG. 1F is a block diagram of a network microphone device in accordance with certain embodiments of the invention.

FIG. 1G is a block diagram of a playback device in accordance with certain embodiments of the invention.

FIG. 1H is a partial schematic diagram of a control device in accordance with certain embodiments of the invention.

2

FIGS. 1-I through 1L are schematic diagrams of corresponding media playback system zones in accordance with certain embodiments of the invention.

FIG. 1M is a schematic diagram of media playback system areas in accordance with certain embodiments of the invention.

FIG. 2A is a front isometric view of a playback device configured in accordance with certain embodiments of the invention.

FIG. 2B is a front isometric view of the playback device of FIG. 3A without a grille.

FIG. 2C is an exploded view of the playback device of FIG. 2A.

FIG. 3A is a front view of a network microphone device configured in accordance with certain embodiments of the invention.

FIG. 3B is a side isometric view of the network microphone device of FIG. 3A.

FIG. 3C is an exploded view of the network microphone device of FIGS. 3A and 3B.

FIG. 3D is an enlarged view of a portion of FIG. 3B.

FIG. 3E is a block diagram of the network microphone device of FIGS. 3A-3D in accordance with certain embodiments of the invention.

FIG. 3F is a schematic diagram of an example voice input.

FIGS. 4A-4D are schematic diagrams of a control device in various stages of operation in accordance with certain embodiments of the invention.

FIG. 5 is front view of a control device in accordance with certain embodiments of the invention.

FIG. 6 is a message flow diagram of a media playback system in accordance with certain embodiments of the invention.

FIG. 7 illustrates a perspective view of a first wireless headphone design in accordance with certain embodiments of the invention.

FIG. 8 illustrates a second perspective view of a first wireless headphone design in accordance with certain embodiments of the invention.

FIG. 9 illustrates a front view of a first wireless headphone design in accordance with certain embodiments of the invention.

FIG. 10 illustrates a rear view of a first wireless headphone design in accordance with certain embodiments of the invention.

FIG. 11 illustrates a top view of a first headphone design in accordance with certain embodiments of the invention.

FIG. 12 illustrates a bottom view of a first wireless headphone design in accordance with certain embodiments of the invention.

FIG. 13 illustrates a right side view of a first wireless headphone design in accordance with certain embodiments of the invention.

FIG. 14 illustrates a left side view of a first wireless headphone design in accordance with certain embodiments of the invention.

FIG. 15 illustrates a perspective view of a second wireless headphone design in accordance with certain embodiments of the invention.

FIG. 16 illustrates a second perspective view of a second wireless headphone design in accordance with certain embodiments of the invention.

FIG. 17 illustrates a front view of a second wireless headphone design in accordance with certain embodiments of the invention.